

Notice of Allowability

Application No.

10/048,194

Examiner

Hong Sang

Applicant(s)

EMMERT-BUCK, MICHAEL R.

Art Unit

1643

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 10/5/06.
2. ☒ The allowed claim(s) is/are 1,3-44,46-54 and 67-72.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☐ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____


LARRY R. HELMS, PH.D.
ADVISORY PATENT EXAMINER

Hong Sang, Ph.D.
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Nov. 6, 2006

EXAMINER'S AMENDMENT

RE: Emmert-Buck

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Anne Carlson on 11/06/2006.

The application has been amended as follows:

a. *Claim 1 was amended as following:*

1. (Currently amended) A method of analyzing a biological specimen, comprising: placing the biological specimen on a substrate with a plurality of different ~~capture-regions~~ layers, wherein the plurality of different ~~capture-regions~~ layers of the substrate contain different identification molecules that interact with different components from the biological specimen; and

transferring components from the biological specimen through the plurality of different ~~capture-regions~~ layers under conditions that allow the components to interact with the different identification molecules in the different ~~capture-regions~~ layers of the substrate, wherein a two-dimensional architecture of the biological specimen is preserved throughout the transfer such that the transferred components interacting with the different identification molecules produce a pattern on each of the different ~~capture~~

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~~regions~~ layers, and wherein the pattern on each ~~capture region~~ layers corresponds to the location of the components from the biological specimen, thereby analyzing the biological specimen.

b. Claim 2 was cancelled.

2. (Cancelled).

c. Claim 4 was amended as following:

4. (Currently Amended) The method of claim 1, wherein ~~the plurality of different capture regions of the substrate is a plurality of different layers, and~~ the biological specimen is a cellular specimen.

d. Claim 46 was amended as following:

46. (Currently amended) A method of analyzing a cellular specimen, comprising:

providing a substrate comprising a plurality of different layers having contiguous faces, each layer including a corresponding capture molecule capable of interacting with and capturing a component from the cellular specimen; applying the cellular specimen to a face of the substrate, and transferring intact components of the specimen through the contiguous faces of the different layers ~~of the matrix~~, wherein a two-dimensional architecture of the cellular specimen is preserved throughout the transfer; such that the transferred components reacting the intact components of the specimen with the

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capture molecule form a pattern on each of the different layers, and wherein the pattern on each layer corresponds to the location of the components from the cellular specimen; and

correlating a pattern of capture in the different layers with information about the cellular specimen.

e. Claim 72 was amended as following:

72. (Currently amended) The method of claim 1, wherein the pattern on each ~~capture region~~ (layer) is further informative about the quantity of the components in the biological specimen.

2. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hong Sang whose telephone number is (571) 272 8145. The examiner can normally be reached on 8:30am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Larry R. Helms can be reached on (571) 272-0832. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should

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you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Hong Sang, Ph.D.

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Nov. 6, 2006



LARRY R. HELMS, PH.D.
SUPERVISORY PATENT EXAMINER